Name: _____ Pd: ___ Distance Learning **Week 3**

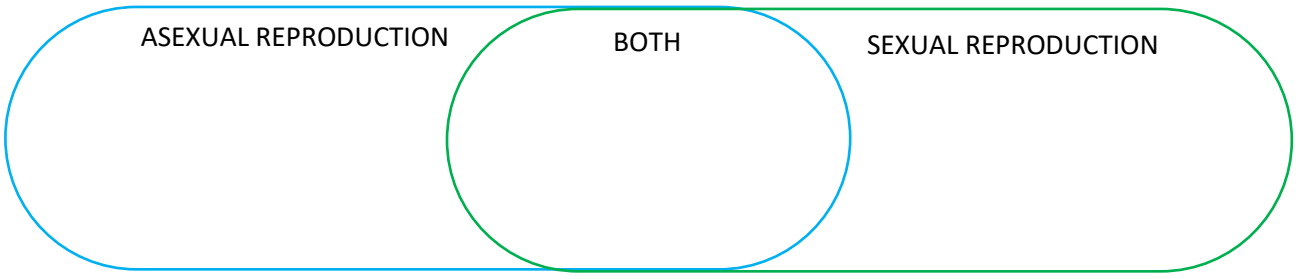
HEREDITY

VOCABULARY – ***Use the resources on Mr. Hanna's website to define the following key terms related to heredity.***

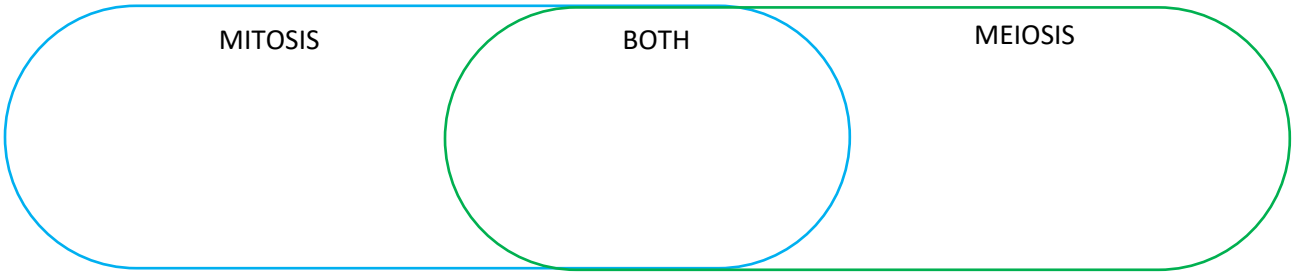
1) Reproduction -
2) Asexual Reproduction -
3) Mitosis -
4) Sexual Reproduction -
5) Meiosis -
6) Mutation -
7) DNA -
8) Chromosomes -
9) Genes -
10) Homozygous -
11) Heterozygous -
12) Genotype -
13) Phenotype –
14) Punnett Square –

SHORT RESPONSE – Provide a short answer (a few sentences or less) in response to each prompt.

15) Complete the Venn diagram below comparing sexual and asexual reproduction (in terms of heredity).



16) Complete the Venn diagram below comparing the processes of mitosis and meiosis.



17) How are DNA, chromosomes, and genes related?

PRACTICE – Use Punnett squares to respond to the prompts below.

18) In a population of rabbits, brown fur (B) is dominant over white fur (b). Complete the Punnett square below for a mating pair of rabbits and answer the accompanying questions.

MOTHER

FATHER	b	b
B		
b		

a. What is the genotype of the mother (*top*)?

b. What is the phenotype of the father (*side*)?

c. What are the chances of this pair producing a brown furred offspring?

d. What are the chances of this pair producing a white furred offspring?

e. What color fur would a homozygous recessive baby have?

19) In a population of cows, the trait for spotted fur (S) is dominant over the trait for solid colored fur (s). Complete the Punnett square below for a mating pair of cows and answer the accompanying questions.

MOTHER

FATHER	S	s
S		
s		

a. What are the chances this pair of cows will produce a spotted offspring?

b. What are the chances this pair of cows will produce a solid colored offspring?

c. What are the chances of this pair producing a heterozygous offspring?

d. What are the chances of this pair producing a homozygous dominant offspring?

e. What phenotype is the offspring most likely to have in this scenario?

20) In a population of rats, grey fur (G) is dominant over white fur (g). Use the completed Punnett square below to figure out the genotypes of the parent rats.

MOTHER

FATHER	___	___
___	Gg	gg
___	Gg	gg